

ACTIVE WAFER FOR IMPROVED GIGABIT SIGNAL
RECOVERY, IN A SERIAL POINT-TO-POINT
ARCHITECTURE

ABSTRACT OF THE DISCLOSURE

An electrical connector is provided for operation in a point-to-point application. The connector includes an insulated housing having first and second card interfaces configured to mate with associated first and second circuit cards. An electrical wafer is held in the housing and configured to operate in a point-to-point architecture. The signal traces end at signal contact pads located proximate to first and second edges, respectively. The signal contact pads receive a unidirectional signal. Each of the signal traces include a break section at an intermediate point along a length thereof to form a disconnect in the signal traces. The connector further includes an active compensation component bridging the break section in the signal traces. The active compensation component compensates the differential signal incoming from the input contact pads for signal degradation and transmits a compensated signal outward to the output contact pads. The active compensation component transmits the signal only in a single direction within the point-to-point architecture.